

Docket No.: 4600-0117PUS1  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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In re Patent Application of:  
Susumu YAMAGUCHI et al.

Application No.: 10/563,425

Confirmation No.: 6373

Filed: June 1, 2006

Art Unit: 1781

For: BODY TASTE IMPROVER COMPRISING  
DECOMPOSED SUBSTANCES OR THEIR  
EXTRACTS OF LONG-CHAIN HIGHLY  
UNSATURATED FATTY ACID

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Examiner: C. A. Paden

**PRE-APPEAL BRIEF CONFERENCE REQUEST FOR REVIEW**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

June 14, 2011

Sir:

Applicants request review of the final rejection in the above-identified application. There are no amendments are being filed with this request.

This request is being filed with a Notice of Appeal.

The review is requested for the reasons set forth on the attached four (4) sheets.

### STATUS OF THE CLAIMS

Claims 1-14 were previously cancelled. Claims 15-21 are pending. No new matter has been added.

### SUMMARY OF THE KEY ISSUE

Claims 15-21 are directed to methods for improving the KOKUMI flavor of food comprising adding to a food a decomposed substance of a vegetable fat and oil composition, where the composition consists of a vegetable fat and oil and 1% by weight or more of an n-6 long-chain highly unsaturated fatty acid having 18 or more carbon atoms and 3 or more double bonds or an ester thereof, wherein the decomposed substance is obtained by oxidation of said composition via heating. Claims 17-21 additionally include specific aldehydes, ketones or alcohols.

The Examiner has rejected claims 15-17 as being obvious over van Dorp (U.S. 3,686,003) and has rejected claims 17-21 as being obvious over van Dorp further in view of Kiritsakis (JAOCs 75(6)673, 1998). The Examiner asserts that van Dorp teaches the addition of an n-6 long-chain highly unsaturated fatty acid having 18 or more carbon atoms and 3 or more double bonds to a vegetable fat and oil because van Dorp separately teaches (a) the addition of arachidonic acid and ethanol to chicken fat with subsequent boiling in water to form chicken soup, and (b) arachidonic acid can be diluted in "a bland fat and oil". Therefore the issue is whether the method for improving the KOKUMI of food by adding to a food a decomposed substance of a vegetable fat and oil composition, said composition consisting of a vegetable fat and oil and 1% by weight or more of an n-6 long-chain highly unsaturated fatty acid having 18 or more carbon atoms and 3 or more double bonds, or an ester thereof is inventive.

### ARGUMENTS

**1. The Examiner improperly concludes that van Dorp teaches adding to a food a decomposed substance of a vegetable fat and oil composition, said composition consisting of (a) a vegetable fat and oil and (b) 1% by weight or more of an n-6 long-chain highly unsaturated fatty acid having 18 or more carbon atoms and 3 or more double bonds.**

Applicants submit that the fat and oil compositions of van Dorp do not "consist of a vegetable fat and oil and 1% by weight or more of an n-6 long-chain highly unsaturated fatty acid having 18 or more carbon atoms and 3 or more double bonds" as recited in the present claims. Instead, van Dorp discloses mixing chicken fat with a composition of ethanol which

contains 10% by weight arachidonic acid. This mixture of three ingredients was then simmered in 800 cc of water for 7 minutes. Then, the entire mixture of chicken fat, ethanol, arachidonic acid, and water was added to the other ingredients (van Dorp, col. 7, lines 50-75). Thus, it is very clear that van Dorp never adds a composition consisting of vegetable fat and oil and arachidonic acid to a food. Accordingly, van Dorp does not teach every step of the claimed method. For at least this reason, Applicants request that the rejection be overturned.

**2. The Examiner improperly concludes that the chicken fat of Example 20 is a “diluent” for the arachidonic acid, such that it could be replaced with a vegetable oil and fat.**

In Example 20 of van Dorp, a composition with ethanol and arachidonic acid is added to chicken fat. Column 3 of van Dorp discusses adding a flavoring compound or precursor to “a suitable diluent, for example an inert solvent, such as bland fat or oil, . . . water . . . such as are used as solvents in the pharmaceutical industry” (col. 3, lines 29-35). Thus, the solvent/diluent discussed in col. 3 of van Dorp is either the chicken fat or the ethanol. Accordingly, replacing the diluent of Van Dorp with a vegetable fat and oil would leave either the ethanol or the chicken fat still to be added. This embodiment is not in the claims.

Moreover, chicken fat on its own would not be replaced with the vegetable fat and oil because the vegetable fat and oil do not meet the operative purpose of van Dorp, which is to improve the natural flavor of chicken fat or chicken meat (see van Dorp col. 1, lines 30-32 and col. 3, lines 49-52). The present method is not trying to enhance an existing flavor but instead develops a totally new flavor in the foodstuff, which is recognized in the art as KOKUMI. For these additional reasons Applicants submit that van Dorp, alone or in combination with Kiritsakis, fails to teach every feature of the claimed methods.

**3. The Examiner improperly assumes that the flavor obtained by the present methods is the same as that obtained by van Dorp and optionally in view of Kiritsakis.**

The Examiner broadly states: “if one of ordinary skill in the art wanted to optimize the flavor of the food, it would have been obvious to modify the flavor with the alcohol of the claims” (see Office Action, dated September 7, 2010, page 5). Applicants responded to this broad assertion, stating:

The Examiner provides no explanation for the proposition that one of skill in the art would know how to “optimize the flavor” of the food by adding these aldehydes, alcohols or ketones (presumably present in the vegetable oil or fat) to

arachidonic acid. There are infinite ways to optimize the flavor of food, and van Dorp says nothing about what “body taste” is or how to optimize for this flavor. Thus, van Dorp provides no guidance on how one of skill in the art would optimize the flavor of food by adding aldehydes, ketones, or alcohols; especially if one of skill in the art is given no guidance on whether to add the specific alcohol of claim 21. (Response, February 4, 2011)

The Examiner responded “[I]t is the examiners [sic] position that olive oil would optimize the flavor of the Van Dorp by providing a complex array of flavoring ingredients to the flavoring composition” (Office Action, page 7). Applicants maintain that the Examiner’s position is insufficiently supported. There is no mention in van Dorp that adding olive oil would enhance the chicken flavor, let alone lead to a different flavor or a complex flavor. Aside from enhancing chicken flavor, Van Dorp does not provide any guidance on how the flavor should be optimized.

The Examiner’s rejections at times seem to be based on a combination of the doctrines of inherency and routine optimization of ranges. However, “the fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art)” MPEP § 2112.

The present invention claims a method which adds to a foodstuff a composition consisting of (a) a vegetable oil and fat and (b) a n-6 long chain fatty acid having 18 or more carbons. Because the composition consists of (a) and (b), optimization could only alter the ratios of the two components and would not allow for the addition of some other component, such as ethanol. Additionally, the flavor obtained is not inherently the same. Applicants have demonstrated that the composition of the claims has a different chemical makeup than a compound obtained with van Dorp (see amendment July 8, 2010, page 7). The addition of ethanol or chicken fat to the claimed composition leads to a composition having a different chemical makeup, and a different taste. Thus, reliance on either optimization or inherency is improper.

Furthermore, in the optimization of ranges the “parameter must first be recognized as a result-effective variable, *i.e.*, a variable which achieves a recognized result, before the

determination of the optimum or workable ranges of said variable might be characterized as routine experimentation." MPEP 2144.05. Here, there is no evidence that changing the diluent in van Dorp would have any effect on the flavor of the food additive. In fact, the diluent is described as an "inert solvent such as a bland fat or oil," presumably because it would be expected to be neutral and not change the flavor (van Dorp, col. 3, line 32-33). Also, there is no suggestion in van Dorp that changing the diluent would lead to a composition which includes the claimed aldehydes, ketones, and alcohols. Furthermore, a practitioner would not consider olive oil to be "bland". Finally, one of skill in the art would therefore not have combined the olive oil of Kiritsakis with the composition of van Dorp because olive oil is not considered to be "bland" by one of skill in the art. Consequently, the Examiner's justification for combining van Dorp with Kiritsakis is insupportable.

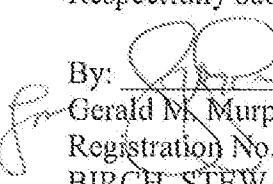
Applicants therefore submit that one of skill in the art would not find the present invention obvious in view of the cited prior art. Applicants request that the present rejections be overturned.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Susan W. Gorman, Ph.D. Reg. No. 47,604 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

Dated: June 14, 2011

Respectfully submitted,

By:  \* 47,604

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		Application Number 10/563,425-Conf. #6373	Filed June 1, 2006
		First Named Inventor Susumu YAMAGUCHI et al.	
		Art Unit 1765	Examiner C. A. Paden

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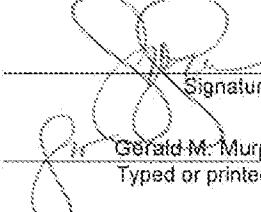
The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

applicant/inventor.  
 assignee of record of the entire interest.  
 See 37 CFR 3.71. Statement under 37 CFR 3.73(b)  
 is enclosed. (Form PTO/SB/96)  
 attorney or agent of record.

Registration number 28,977

  
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 Signature  
 Gerald M. Murphy, Jr.  
 Typed or printed name

attorney or agent acting under 37 CFR 1.34.  
 Registration number if acting under 37 CFR 1.34.

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Telephone number

June 14, 2011

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.  
 Submit multiple forms if more than one signature is required, see below\*.

\*Total of 1 forms are submitted.